



Transport
Canada

Transports
Canada

TP 6980E

Issue 3&4/2004



feedback

Canadian Aviation Service Difficulty Reports

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hangar noise

A Message for Aircraft Maintenance Personnel

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You will soon be able to complete your AAIR form on the Web at the following address:

<http://www.tc.gc.ca/cawis-simnaw/>

Full details of the AAIR requirements are provided in CAR V, Subpart 01, and the associated Standard 501, both of which are now available on the TC Internet at: www.tc.gc.ca.

Instructions for completing the AAIR online will be supplied with each copy of the reporting form #240059. In order to logon to the Web, simply use the AAIR Access Code indicated directly on the top right of the AAIR form that will have been mailed to you by TC.

Enquiries related to the AAIR for a particular aircraft should be addressed to the appropriate Transport Canada Centre.



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Cover Photo: Convair 580

Cette publication est aussi disponible en français.

fixed wing

BELLANCA 7GCBC

SDR # 20040512005

Aft Wing Spar Lower Stiffeners Chafed

This particular aircraft is retrofitted with metal spar wings. Attached between the aft wing spar and aft strut attachment point are three foot stiffeners. As a result, there is minimal clearance between the wing fabric and the stiffeners.

During flight, the inspection access metal cover clips vibrated, causing damage to the stiffener. Additionally, the turbulence absorbed by the aft struts further aggravates chafing to the stiffener.

The submitter recommends using a two-clip inspection hole cover rather than the four-clip type, and repositioning the clips may also reduce chafing damage. Indexing and labelling the fabric cover and wing may be advisable.

BEECH B200

SDR # 20040423006

Safety Switch Defective

After conducting a walk-around, the pilot reported that the angle of attack vane was hot and appeared to be on "high" mode. In researching the wiring diagram and troubleshooting system operation, maintenance discovered the left main gear safety switch, P/N 1013646283, had high resistance through the switch contacts when the aircraft was on the ground.

Consequently, the defective switch was delivering false information to the stall heat panel allowing maximum voltage for maximum heat. Due to this false information, the aircraft assumed that it was in "flight mode". The failed switch was replaced and normal operation of the system resumed.

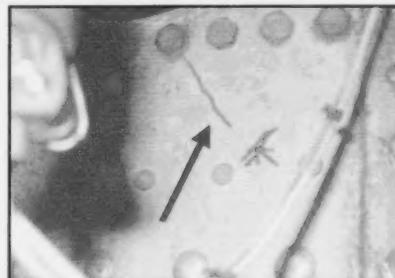
Times Since New (TSN): 6471.8 hrs

BOEING 727

SDR # 20040519011

Keel Beam Web Area Cracked

While troubleshooting an APU snag, maintenance personnel discovered a crack in the keel beam web load control valve area, STA 870. The damage is being repaired in accordance with SRM 53-10-9. Crack length approximately 3.5 inches in length.



BOEING 737

SDR # 20040519014

Spoiler Actuator Cracked

While taxiing to the gate, the aircraft experienced a loss of nose wheel steering accompanied with the total loss of hydraulic system "A" pressure and quantity.

Maintenance found the #8 ground spoiler actuator to be the cause. The actuator body had structurally failed causing the fluid loss. The actuator was replaced and aircraft returned to service.

The actuator was routed to the maintenance provider's shop with request for full report.

The SDR database contains other examples of this type of failure. Maintainers are encouraged to pay close attention to this area in an attempt to detect the leak and possibly prevent component in service failure.

BOMBARDIER CL215 1A10 - Water Bomber

SDR # 20040510003

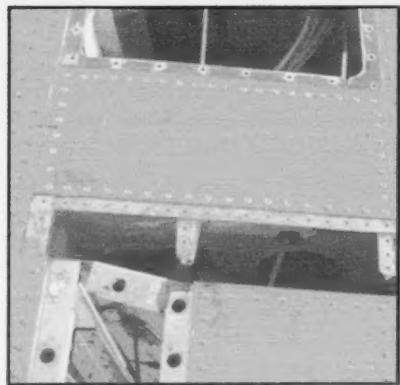
Control Cable Corroded

During a structural repair to the right rear wing-to-fuselage frame angle, a panel at WS 60.80 adjacent to the rear spar, had to be drilled off to facilitate the repair.

Corrosion was discovered on the rudder/aileron interconnect cable, P/N 215-90381-2, which lies directly under this panel. The corrosion was removed and upon a closer inspection, several broken strands were noticed.

The maintenance manual was consulted and it was determined that the cable was damaged beyond limits. The cable was removed and replaced with a serviceable one. It is worth noting that the damage would be impossible to spot had it not been for the removal of the riveted panel. This is an area that is normally inaccessible.

When maintenance is being performed in areas where access could not normally be gained, AME's are reminded to be diligent and check for additional defects.

**BOMBARDIER CL600 1A11**

SDR # 20040322006

APU - Plenum Assembly Fractured

When the APU (auxiliary power unit) was started, it would not accelerate past 40%. Investigation found a large split (crack) on the outer casing of the plenum assembly, P/N 3846068-5.



The APU was removed and further investigation revealed a completely detached broken bracket lying in the APU compressor inlet duct. This piece was identified as a broken flange from the inside of the inlet duct. Further inspection of the compressor rotor showed significant damage from contact with the aforementioned broken bracket. The elbow tube assembly that is attached to the inlet plenum, P/N 3846007-1, was also found to be loose and worn from vibration.

When this APU was installed, it was reported to have a high pitch whine but the cause was never determined. However, the operation was normal until it would not accelerate on start-up. A possible cause of the "whine" was from an out-of-balance condition.

Continued operation of the subject APU resulted in APU fatigue-related failures of the compressor inlet bracket, which then contacted the compressor rotor, creating a massive "out-of-balance" condition and eventual failure of the APU plenum assembly and other parts.

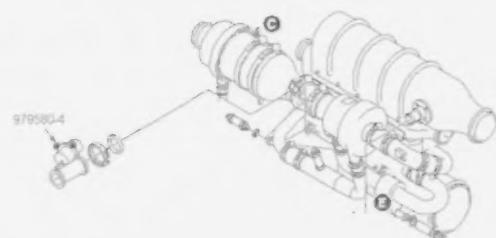
BOMBARDIER CL600 2B16 (604)

SDR # 20040514001

Low-Limit Valve Detached

After engine start, crew was unable to obtain cold air-conditioned air out of the left air-conditioning pack. Engines were shut down and maintenance was notified of the snag. Maintenance discovered that the low-limit valve butterfly, P/N 979580-4, was no longer attached to its shaft.

The butterfly was located in the duct just below the air-cooling turbine. The air-cooling turbine was also replaced as a precaution due to suspected FOD damage.



CESSNA 210L

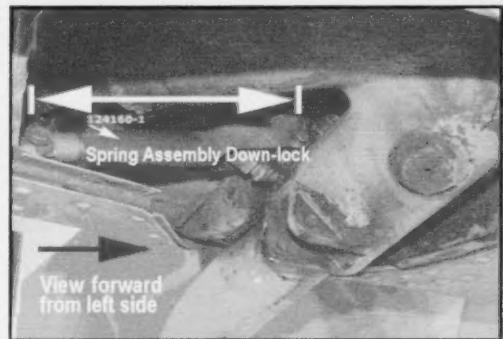
SDR # 20040423003

Lubrication Type Unclear

The main landing gear down-lock spring assembly sliding action was restricted by accumulation of dirt and debris. The down-lock, P/N 124160-1, was unable to fully engage, resulting in an "unsafe" gear indication. Inspection revealed wet lubrication attracted debris and dirt in the spring assembly concentric sleeve and spring.

Section 2 of the Cessna inspection manual is vague regarding lubrication type and applicability, and states in part - "...and any other friction point obviously requiring lubrication".

The submitter recommends that dry lubrication be used in this area and increased awareness of individual inspection programs for aircraft operating in "off-airport" locations, such as gravel and dusty strips.

**DIAMOND DA20 A1**

SDR # 20040203013

Muffler Obstructed

When the muffler tailpipe was found nearly snapped off; a detailed examination revealed that the internal baffles in the muffler were broken off at the weld. The muffler baffles obstructed the exhaust outlet port creating a pressure build-up inside the muffler and caused loss of engine power.

The operator has started a fleet-campaign and now carries out a "tap-test" inspection to determine if the muffler baffles are excessively loose or broken off.

The exhaust system components are subjected to extreme temperatures, and the resulting expansion and contraction produce stresses that often result in cracks and distortion due to warpage. Regular and thorough inspections are especially important to detect internal muffler failures.

DE HAVILLAND DHC 2 Beaver

SDR # 20030327009

Amphibious Nose Gear Separated

During inspection when the aircraft was jacked, the amphibious nose gear separated from the float. The inner casing assembly, P/N C2UF1781, had failed at the welded seam.

HAWKER SIDDELEY HS 748

SDR # 20040415004

Elevator Control Arm Cracked

On pre-flight inspection when checking the elevator play, excessive movement revealed the elevator control bell crank primary attach lug, P/N 298/G3096, was cracked through, and that the rod end was being retained by an oversized secondary lug.

This resulted in a decrease of travel on starboard elevator and substantially increased free-play. The restricting bracket, introduced by mandatory modification 2449/SB27-33, retained the elevator actuator rod. There is no recent report of the aircraft experiencing any gust loads to the elevators.

This defect was detected by a thorough pre-flight inspection.

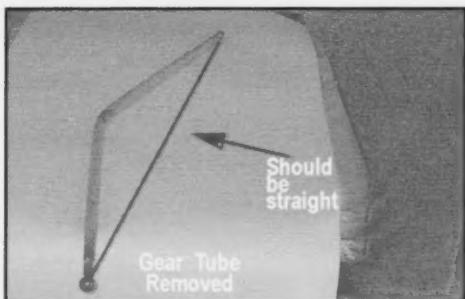


MOONEY M20C

Main Gear Collapsed

The right main gear of a Mooney M20C aircraft, collapsed on landing roll-out. Initial investigation discovered that the main gear actuating tube inside the belly, P/N 915019000, was bent. It is unknown if this tube was bent before the incident or as result of main gear collapse.

Time Since New (TSN) : 4060 hrs



This incident is currently under investigation by the Transportation Safety Board (TSB). Due to the bent landing gear tube, the submitter was unable to determine if the gear downlock rigging was within published limits or not.



The submitter also recommends close inspection of actuating tubes for bending. These tubes are under compression load when the gear is at down and locked.

PIPER PA 31

SDR # 20040219006

Left Main Axle Broken

The pilot was taxiing a Piper PA 31 for take-off when the left main axle, P/N 4041304, broke. After hearing vibration and noises, the pilot taxied back and discovered the left main wheel had tilted over and was rubbing on the fork assembly.

Time Since New (TSN): 16094 hrs



The submitter added that this aircraft previously landed long and fast on a short dirt runway. In departing the end of the runway, the left main gear struck a pothole and subsequently a prop strike occurred necessitating a prop and engine replacement. The runway incursion may have contributed to this premature failure of the axle.

PIPER PA 42 720 -

SDR # 20040427016

Avionics Lost on Final Approach

On final approach, the pilot noticed he had lost primary avionics power and the standby power supply had engaged to provide basic power. An uneventful landing was carried out.

An investigation by maintenance determined that the avionics master switch, P/N 688219, (push to engage, push again to disengage) had malfunctioned and disengaged to the 'off' position. The internal latching mechanism is not visible for inspection. The failed switch was replaced.

Time Since New (TSN): 9124 hrs

PIPER PA44-180

SDR # 20040517002

Stabilator Servo-Trim Cable Frayed

While removing an electric trim servo used in the stabilator system, the forward stabilator trim cable, P/N 62701160, was discovered frayed. It also had wound itself around the electric trim servo pulley. The cable was replaced with a new one.

The submitter added that this is a difficult area to inspect. In order to locate any defects on the cable, the electric trim servo may have to be functionally operating in both directions.

rotorcraft

AEROSPATIALE AS332L

SDR # 20040504001

Tail Rotor Pedal Adjuster Cracked

The pedal adjustment mechanism was reported jammed. Further inspection revealed the tail rotor pedal adjuster support, P/N 332A-27233006, had cracked.

The submitter discovered an identical discrepancy on another aircraft during a "G" maintenance inspection. A fleet-wide inspection at the home base resulted in no other similar defects found.

This SDR may be worth keeping in mind while inspecting this area.



BELL 407

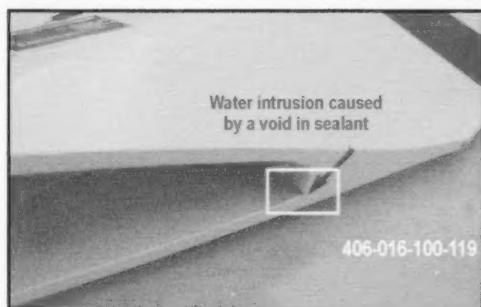
SDR # 20040413006

Water in Tail Rotor Blade

A tail rotor blade, P/N 406-016-100-119, was discovered to have absorbed water. This anomaly caused an imbalance of the tail rotor creating excessive vibrations.

Time Since New (TSN): 12.3 hrs

The manufacturer added that the water ingress might have been caused by a void in the sealant.



feedback **feedback** **feedback**

engines

AVCO LYCOMING O-320-E2D (Cessna 172M)

SDR # 20040216005

Excessive Wear Due to Improper Lubrication

The engine oil on a Cessna 172 was found contaminated after only 33 hours since overhaul (TSO). Following engine disassembly, the source of the oil contamination was obviously due to the abnormal and excessive wear found on all four connecting rods. A deep scar was also noted on the crankshaft.

The operator completed a thorough inspection of the engine and concluded that all of the manufacturer's inspection requirements were carried out satisfactorily at overhaul.

Following a discussion with the pilots, it was learned that the engine had recently been subjected to cold weather starts without being pre-heated. It was also revealed that the aircraft was in operation with 100-grade mineral oil (summer oil) because 80-grade mineral oil (winter oil) was not available. The operator stated that they use 100-grade oil for the "break-in" period following engine overhaul.

The operator concluded that the use of 100-grade oil in very cold starting conditions caused a lack of lubrication in the engine power section (crankshaft, connecting rods).

The viscosity of engine oil is imperative to ensure proper lubrication under all operating and temperature conditions. In addition to reducing friction, the viscous oil film acts as a cushion between moving parts thereby reducing friction. The engine manufacturer's recommended oils should be used at all times.

AVCO LYCOMING TIO-540-J2BD (Piper PA31 350)

SDR # 20040312002

In-flight Engine Fire

During cruise flight, noises were heard coming from the #2 engine. Shortly thereafter, there was a loud bang and vibration followed by oil and smoke coming from the engine cowl. The crew immediately feathered the propeller and shut down the #2 engine and carried out an uneventful landing.

Maintenance personnel determined that a connecting rod had failed and then penetrated the crankcase. As a result, engine oil spewed overboard contaminating the general area. Some of the engine oil entered the turbocharger and ignited, causing the fire to flow along the underside of the wing. Heat damage was evident on the lower wing surface. Secondary damage was also occurred on the lower flap skin and landing gear door.

Time Since Overhaul (TSO): 987 hours.

GARRETT TPE331-10UA (Swearingen SA226TC)

SDR # 20040115002

Engine Plenum Fitting Weld Cracked

On climb-out, following take-off roll, the flight crew observed a split-second fire warning indication. The flight crew continued to closely monitor the cockpit gauges and then determined that a false indication had occurred.

Shortly thereafter, the left engine gradually began to lose power until it reached about fifty-five percent torque and its maximum allowable EGT limit. The aircraft returned to base and carried out an uneventful landing.

Upon inspection by maintenance crew, the left engine plenum drain fitting, which is welded to the plenum, was found cracked and partially separated. It was observed that the drain fitting had been incorrectly installed in a slightly rearward direction that later resulted in a stress fracture and failure in the weld area. As a result, hot combustion gases entered into the engine compartment and caused some heat damage to the electrical wiring harnesses in the immediate area.

A review of the SDR database revealed several similar incidents describing cracks at different weld areas of the engine plenum. Particular attention should be paid to the weld areas on the engine plenum fittings (igniter mount bosses, bleed-air extraction port boss, drain valve boss, etc).

PRATT & WHITNEY CANADA PT6A-20 (Beech 99)

SDR # 20040513008

Engine Power Control Spring Jammed

The engine power was set to 1,290 foot-pounds for take-off roll. Shortly after rotation, the pilot noticed that the engine torque was slowly increasing on the right engine. The co-pilot attempted to reduce engine power but the power lever would not move. The engine torque continued to increase to approximately 1,500 foot pounds and remained there for about 90 seconds.

After reaching a safe altitude, the pilot shut down the right engine and carried out an uneventful landing.

Prior to removing the engine for an over-torque inspection, maintenance personnel carried out an inspection of the engine mechanical control system. It was then noticed that the engine power control spring link was catching on the control lever-mounting bracket. The control spring link is at the base of the rod end that attaches the airframe Teleflex power cable to the input arm on the cam cluster. The action of the spring link, when it snagged the control lever bracket, would be to pull the power lever towards a higher power setting and ultimately jam at that position.

The SDR submitter stated that this link should have been installed 10-15 degrees further in the counter clockwise direction on the power cable. Furthermore, the submitter stated that the maintenance manual does not give any information on the placement of this link and there is no device, such as a tab or pin that would have prevented this occurrence. A rig pin may not detect this problem unless the rod end is rotated as far as possible clockwise when moving the levers.

Transport Canada recommends that a detailed visual and functional check be carried out in all extreme travel positions on the engine power linkage controls, following adjustment.

PRATT & WHITNEY CANADA - PT6A-65B (Beech 1900C)

SDR # 20040518003

Engine Breather Hose Displaced

Shortly after take-off, the cabin began to fill with fumes and oil vapors. The crew turned off the engine bleed-air and safely returned to the airport.

Maintenance personnel found that the #1 engine breather hose was kinked and pinched. This caused the engine accessory case to pressurize and to force the engine oil to pass the engine labyrinth and the gear lock seals and then enter the engine compressor section.

Some of the oil vapors then entered the cabin through the aircraft bleed-air system creating fumes and visible oil vapor.

The engine breather hose was inspected and repositioned.

propellers

HARTZEL HC-E3YR-2ATF (Piper PA 31 350)

SDR # 20040519007

Propeller Cable Broken

Shortly after take-off, a loss of R/H propeller pitch control was noted. The pilot reduced the manifold pressure, completed the propeller overspeed check, secured the right engine and made an uneventful landing.

Maintenance personnel discovered the propeller cable was broken. The cable was completely worn through where it attaches to the support that is connected to the engine starter. This area is just below the propeller governor.

TC recommends that operators and maintainers inspect this hard to access area to verify propeller cable condition.

heads UP

WIRE AND LINE CHAFING

The chafing of lines and electrical wires plagues aviation from the smallest private aircraft to the largest commercial operation. Properly routing and securing of vital lines and wires that supply life to aircraft components begins with the manufacturer, and continues with the AME while the aircraft is in service.

As aircraft are modified with new systems, additional lines or wires usually will be required. When developing installation instructions, the STC holder may elect to follow an existing path or take a new one. This complicates things, because the installer requires proper security and the protection of the new and existing systems. We are responsible to ensure proper clearance and security of lines and wires to protect the aircraft structure and its systems. Downtime cost money, secure and protect these critical systems.

BEECH C90A

Instrument Air Tube Chafed

SDR # 20030717001



During a maintenance ground run, following the start of the right engine, a hissing sound was noticed emitting from behind the instrument panel. Further investigation revealed that the instrument air tube, P/N 1013202661, had been chafing on the upper corner of the radio rack. The tube is used to join the vacuum regulator to the left side of the forward bulkhead to the manifold located in the cockpit behind the instrument panel on the right side.

CESSNA C172

Wire Harness Behind Radio Panel Chafed

SDR # 20040423010

A pilot reported that the flight controls of his Cessna 172R were "stiff and very hard to move" during run-up prior to departure, and the pilot elected to return to base.

The AMO found a wire harness behind the radio panel chafing on the throttle mount causing an electrical short to ground. This caused the auto-pilot servo to engage uncommanded.

FAIRCHILD SA227DC

Hydraulic Supply Line Chafed

SDR # 20040507004

During flight, the right hydraulic pressure annunciation went from intermittent to continuous. Prior to landing, when flaps and gear were selected, further loss of hydraulic pressure was experienced. The auxiliary gear extension procedure was carried out and the gear locked down for an uneventful landing.

Post-flight inspection revealed hydraulic oil on the underside of the aircraft. Maintenance discovered a chafed hole in a hydraulic supply line in the right wing leading edge inboard of the nacelle. The line was subsequently replaced.

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equipment ADs

Transport Canada (TC) endeavours to send copies of new airworthiness directives (ADs), which are applicable in Canada to the registered owners of the affected products. Equipment/appliance ADs are often only distributed to our regional offices because the owners of aircraft affected by this type of AD are not generally known.

The following new ADs on equipment have been received by TC in the last three months. AMEs and operators of the affected products are encouraged to obtain further information or a copy of the ADs from their regional TC office, their local TCC, their PMI, or from the Civil Aviation AD website at:

<http://www.tc.gc.ca/civilaviation/certification/continuing/ad.htm>

Manufacturer	Ad Number	Origin	Description
BF GOODRICH	2004-08-15	US	LOADING OF THE BARO-SET POTETIOMETER -INSPECT TAWS 8000 PART NUMBER 805-18000-001, ASB 117
CAPEWELL	2003-300(A)	FR	PARACHUTE - ACCOMPLISH RIPCORD PIN FIELD TESTCAPEWELL SERVICE BULLETIN CW03-1
ENGINE COMPONENT INC	2004-08-10	US	TCM ENGINE 520 AND 550 SERIES WITH STC SE4327SW OR SE09104SC ORSE09261SC
GARMIN	2004-10-15	US	RECEPTION OF INACCURATE REPLIES DUE TO SUPRESSION FROM GTX 330/330D MODE S TRANSPONDERS
GARMIN	2004-13-20	US	APOLLO GX50/55/60/65 TSO-C129A GPS NAV. UNITS- SOFTWARE VER. 3.0-3.4 - SB 561-4002-001
LORI	2004-09-31	US	OIL COOLER - INSTALLED AS PER STC SA8937SW. HONEYWELL SB 28E99-79-2036
NARCO	2004-08-16	US	AT150 TRANSPONDERS S/N 10000 THRU 12598. SER VICE BULLETIN AT150 NO. 6
RECARO A/C SEATING	D-2004-151	GY	SEAT TYPE 3410 - SEAT BELT RETAINING FITTING BOLT CONNECTIONS. SB 3410-25MR477 REV.2
TALES AVIONICS	F-2004-04R1	FR	CANCELLATION NOTICE- AD SUPERSEDED BY F-2004-053
TALES AVIONICS	F-2004-053		TA/RA VSI-TCAS IND.P/N 457400-() FITTED ON A/C EQUIPPED WITH TCAS II CHANGE 7 COMPUTER

suspected Unapproved PARTS



The submitters of the following Service Difficulty Reports (SDRs), received during the previous quarter, indicated that an unapproved part (SUP) was suspected. The list is provided here for information only and should not be construed as an identification of confirmed unapproved parts. In Canada, SUPs should be reported indicating your suspicion of an unapproved part on a regular SDR form or on the Internet at: www.tc.gc.ca/wsdrs

SDR # 20040299	AIRCRAFT MAKE: CESSNA 182B	PART NAME: Carburetor throttle shaft bushings
The carburetor throttle shaft bushings and mixture shaft were found worn. Further investigation revealed that the carburetor should not have been fitted to this model engine in this model aircraft.		
Upon attempting to install the rear turbine shaft nut onto turbine shaft, it was found that the nut would only thread halfway down and then the threads would start to pile up and bind. With the turbine shaft in an unstretched condition, the nut would work fine and would thread on freely by fingers only as it should. Once the shaft is stretched upon installation, the nut would not thread on completely. To eliminate the possibility of the shaft being a problem, a different batch of nuts were checked with no problems being installed on the stretched shaft.		
Twenty (20) nuts have been removed from company stores due to the fact they are from the same HONEYWELL lot number as the defective nuts. The lot number of the defective nuts is 0311024140.		

AGING AIRCRAFT, Part III



→ Ramon (Ray) Raoux, P. Eng.(ret)

A zonal inspection typically could entail a visual inspection for corrosion, missing/loose fasteners and other physical damage... an "enhanced" zonal inspection would include inspecting for the structural concerns

frustrating maintenance actions whereby replacing an electrical component returns a system to a serviceable state, but no fault is subsequently found with the removed electrical component when sent for repair or overhaul.

AIRCRAFT ZONES

Transport category aircraft can be defined by a common series of zones that can be used to assist in maintenance planning and work card production by specifying work areas and components. A zone can be defined by physical boundaries such as wing ribs, fuselage frames, control surfaces and areas accessible at access panels. Hence, a zonal inspection typically could entail a visual inspection for corrosion, missing/loose fasteners and other physical damage over an internal area of the fuselage defined as being between two adjacent frames [usually 20 inches apart] and between specified stringers. An "enhanced" zonal inspection (EZI) would include inspecting for the structural concerns just mentioned, but also include inspecting any system components such as wires and hydraulic lines in the same area, plus a cleaning task to remove any combustible material such

BACKGROUND

The previous issue of **feedback** briefly described the rationale for, the workings of, and the recommendations made by the Aging Transport Systems Rulemaking Advisory Committee (ATSRAC) to address aircraft wiring concerns. It was not surprising that perhaps the most important finding, which has been noticed by the various investigations under the auspices of ATSRAC, was the need to recognize wire systems as a system that requires periodic inspection and cleaning. Implementation of the recommendations, particularly those related to the rationale for an Enhanced Zonal Analysis Procedure, can potentially reduce the number of fire-related incidents and nuisance circuit breaker trips. It should also reduce the number of

as lint or chemical contaminants. The rationale for developing the EZI concept is that each wire or wire bundle or connector [i.e., wire system] in the zone is treated as a potential ignition source and the other contents of the zone are considered as being potentially combustible material [lint, spilled fluids, etc] or potentially contributing to combustion [fuel/oxygen/hot air lines].

WIRING CONCERNs

Perhaps the most important finding, which has been noticed by the various investigations under the auspices of ATSRAC, is the need to recognize wire systems as a system that requires periodic cleaning and inspection. Contaminants such as lint and grease are flammable and need to be removed to eliminate a potential combustion source. Swarf and metal filings can become lodged in a wire bundle and eventually cut or wear through the insulation; not only will the bare metal underneath be exposed and create a potential ignition source, but the conductive metallic residue can bridge the gap between the wire surface and an adjacent metal surface. The presence of any sticky fluids on the wire will help to ensure that these metallic residues do not fall-off the wire into a benign location. The rear side of circuit breaker panels are seldom accessed; yet they can accumulate a significant built-up of flammable lint.

Some of the following wiring concerns to inspect for, as the inspection portion of an EZI would include:

- Wire clearance from fuel and oxygen lines, hydraulic lines, bleed air ducts and flight controls;
- Wire bundle breakout joints;
- Missing or broken bonding jumper cables;
- Sharp bend radius causing mechanical strain;
- Localized heat damage;
- Fluid stains;
- Missing or damaged heat or drip shields;
- Absence of drip loops;
- Loss of wire segregation;
- Broken, missing and incorrect sized clamps and missing ties;
- Missing sleeving and grommets and damage where wires enter or exit a metal conduit;

- Chafing of wires on structure, particularly in transition zones such as engine nacelle to fuselage, fuselage to wing and fuselage to wheel well etc.;
- Damage to and contamination of wiring caused by maintenance activity or by cargo and baggage handling; and
- Presence of combustible material including lint, paper and fluid residue.

The benefits of a clean wiring system are applicable to all sizes of aircraft, whether it be the largest multi-engine transport category or the smallest single engine general aviation category aircraft. The difference is that the task is much easier and less labour intensive for the latter category of aircraft.

CLEANLINESS IS NEXT TO...

In an initial step towards addressing wiring systems, the concept of "Clean As You Go" is being promoted. This means that before any planned maintenance action is started, the area affected should be inspected and any wiring in the area should be protected to ensure it does

not become damaged or contaminated by the planned work. If electrical connectors have to be removed to facilitate access, they should be blanked-off. After completing the work, the area should be thoroughly cleaned. A video, titled "ATA Specification 117 - Wiring Maintenance Practices/Guidelines", has been produced illustrating the guidelines to follow when performing maintenance in the vicinity of aircraft wiring.

AN EVOLVING INSPECTION CULTURE

A cultural change such as the "Clean As You Go" concept can be implemented and the benefits enjoyed today; it is not necessary to wait for regulatory action to address concerns with wiring systems. Furthermore, the regulatory actions likely would not be applicable, at least initially, to the smaller aircraft fleets.

It is recognized that there are limits on what can be achieved through wire inspections. The next **feedback** article will discuss how damaged and age-deteriorated wire can lead to in-service difficulties or worse.

Photos: Courtesy of J.R. (Rod) Digney

FAA Special Airworthiness Bulletins (SAIBs)

An SAIB is an information tool that alerts, educates, and makes recommendations to the general aviation community. It is non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD).

<http://www.faa.gov/certification/aircraft/av-info/ad/saibs.asp>

SAIB #	Manufacturer	Model	Issue Date
CE-04-61	SOCATA	TBM 700	04/12/2004
CE-04-62	Pilatus Aircraft Ltd.	PC-12 and PC-12/45	04/12/2004
CE-04-63	The New Piper Aircraft, Inc.	PA-28-140, PA-28-150, PA-28-160, PA-28-180, and PA-28-235	04/16/2004
CE-04-64	Glasflügel	Mosquito & Mosquito b, Glasflügel 304, Club Libelle, Hornet, Hornet C	04/26/2004
CE-04-65	SCHEMPP-HIRTH	Discus 2T	04/29/2004
CE-04-66	Mooney Aircraft Company	M20	04/29/2004
CE-04-67	Learjet	Learjet 35 and 36	05/06/2004
CE-04-68	Raytheon Aircraft Company	390	05/14/2004
CE-04-69	Univair Aircraft Corp. (Fomey)	F-1A, (Alon) A-2, A2-A, and (Mooney) M10	06/09/2004

FAA Unapproved PARTs Notification (UPNs)

Published by: FAA, AIR-140, P.O. Box 26460, Oklahoma City, OK 73125. UPNs are posted on the Internet at:
<http://www.faa.gov/avr/sups/upn.cfm>

No. 2002-00098 issued June 21, 2004

AFFECTED PARTS

Life rafts and life vests approved for return to service by Inflatable Services, Inc.

PURPOSE

The purpose of this notification is to advise all aircraft owners, operators, manufacturers, maintenance organizations, and parts distributors regarding improper maintenance performed on life rafts and life vests by Inflatable Services, Inc.

BACKGROUND

Information received during a Federal Aviation Administration (FAA) suspected unapproved parts (SUP) investigation revealed that Inflatable Services, Inc. (Inflatable Services), may have improperly approved life rafts and life vests for return to service between October 2000 and May 2002. Inflatable Services, located at 990 W. State Road 84, Fort Lauderdale, FL 33315, previously held Air Agency Certificate No. LE4R33M.

Evidence indicated that Inflatable Services failed to accomplish maintenance in accordance with the manufacturers' maintenance manuals; Instructions for Continued Airworthiness; or other methods, techniques, and practices acceptable to the FAA. Discrepancies noted on a life raft included excessive air leakage, a non-conforming inflation cylinder, and non-conforming survival kit contents. The FAA has been unable to determine all the life rafts and life vests affected; therefore, those approved for return to service during the time frame specified above should be considered suspect.

RECOMMENDATIONS

Regulations require that type-certified products conform to their type design and be properly maintained using current data, required equipment, and appropriately trained personnel. Aircraft owners, operators, manufacturers, maintenance organizations, and parts distributors should inspect their aircraft and/or parts inventory for any parts approved for return to service by Inflatable Services during the time frame specified above. Appropriate action should be taken if any of these parts have been installed on an aircraft. If any existing inventory includes these parts, the FAA recommends that you quarantine the parts to prevent installation on an aircraft until a determination can be made regarding each part's eligibility for installation.

FURTHER INFORMATION

Further information may be obtained from the FAA Flight Standards District Office (FSDO) shown below. The FAA would appreciate any information regarding the discovery of the above-referenced parts from any source and the action taken to remove them from inventory or service. This notice originated from the Fort Lauderdale FSDO, 1050 Lee Wagener Blvd., Fort Lauderdale, FL 33315, telephone (954) 356-7520, fax (954) 356-7531; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 668-3720, fax (703) 481-3002.

CONGRATULATIONS...

...to the following people who have won our door prize at the previous symposia!!!!

Claude Desjardins (Montreal)

Chad Mitchell (Thunder Bay)

AME SYMPOSIA schedule

Below is an updated schedule of the AME Symposia for the 2004-2005 season. There have been a few changes therefore please disregard any reference to what was advertised in previous issues of **feedback**

ONTARIO - October 27 - 29

The Delta Meadowvale Resort & Conference Centre
6750 Mississauga Road, Mississauga, Ontario L5N 2L3
Tel: 1-800-422-8238 or 905 542-4003 Fax: 905 542-4036
Internet: <http://www.deltahotels.com/hotels/hotels.php?hotelId=1>

NORTH WESTERN ONTARIO - November 12

Victoria Inn & Conference Centre
555, Arthur Street West, Thunder Bay, ON
Tel: 1-800 387-3331 or 807 577-8481 Fax: 807 475-8961
Internet: www.vicinn.com

QUÉBEC - November 17 - 18

Hilton de l'Aéroport - Dorval
12505 Côte-de-Liesse, Montréal Québec H9P 1B7
Tel: 1-800-567-2411 514 631-2411 Fax: 514 631-0192
Internet: www.hilton.com

PACIFIC - January 24 - 26

Ramada Park Plaza Vancouver Airport Conference Resort
10251 St. Edwards Drive, Richmond, British Columbia V6X2M9
Tel: 1-866-482-8444 or 604 278-9611 Fax: 604 276-1121
Internet: vacres@nwihotels.com

CENTRAL - March 2 - 4

Best Western Victoria Inn Winnipeg Airport
1808 Wellington Avenue, Winnipeg, MB R3H 0G3
Tel: 1-800-928-4067 or 204 786-4801 Fax: 204 786-1329
Internet: www.vicinn.com

WESTERN - March 16 - 18

Coast Plaza Hotel & Conference Centre
1316 - 33rd Street NE, Calgary, AB T2A 6B6
Tel: 1-800-661-1464 or 403 248-8888 Fax: 403 248-0749
Internet: www.info@calgaryplaza.com

ATLANTIC - April 29 - 30

Delta Hotel St. John's
102 - 108 Kenmount Road, St. John's, NL A1B 3R2
Tel: 709 722-9330 or 800 563-2489 Fax: 709 722-9231
Internet: www.csc@cityhotels.ca

MAKE/MODEL/JASC	PART NAME	PART NO.	PART CONDITION	SDR NO.	RGN	MAKE/MODEL JASC	PART NAME	PART NO.	PART CONDITION	SDR NO.	RGN	
737 217	5755	SLAT ACTUATOR		20040625004	PNR	172K	3221	LANDING GEAR SUPPORT	05411212	CRACKED	20040511002	ONT
737 7CT	2740	STAB TRIM MOTOR	6355C00101	20040415001	PNR	172K	3221	UPPER TORQUE LINE	04425061	CRACKED	20040506003	ONT
737 7CT	7160	FAN BLADE	S3400010260	20040531003	PNR	172M	2730	CLEVIS BOLT	AN2312	INCORRECT INSTALLATION	20040415003	PNR
737 76N	5730	DEFLECTION CONTROL		20040607005	PNR	172M	5344	DOOR POST		CRACKED	20040604008	ONT
757 236	2565	SLIDE	D31041147	20040513004	PAC	172M	5554	HINGE BRACKET	05310188	CRACKED	20040604006	PAC
757 28A	7300	FUEL FLOW GOVERN	8062549	20040503011	PAC	172M	5753	LH FLAP		CRACKED	20040505003	ONT
767 3Y0	3242	MLG CARBON BRAKE	260881211	20040603006	QUE	172M	7933	OIL FILTER ADAPTOR	204418156	FAILED	20040528006	QUE
767 375	3417	AIR DATA COMPUTER	4040800906	20040513003	QUE	172N	2497	WIRING OF CIRCUIT		BURNT	20040426007	PNR
767 38E	5610	WINDSHIELD	1417480150	20040427004	QUE	172P	7322	THROTTLE CONTROL	2520851	WORN	20040401004	ONT
BOEING HELICOPTERS												
234	6300	VERTICAL DRIVE SHAFT		20040410001	PAC	172R	5564	FLUID CIRCUIT THERMOCOUPLE	05310187	CRACKED	20040401004	QUE
BOMBARDIER												
BD 100 1A10	3242	BRAKE PEDAL TRANSDUCER	201095001	20040427017	QUE	172S	2400	AUTO-PILOT		CHAFED	20040629007	PAC
BD 700 1A10	2700	SLAT TORQUE TUBE	5910461	20040408012	QUE	177RG	5510	RIB STABILIZER	053200199	CRACKED	20040423010	ATL
BD 700 1A10	2742	ACME SCREW	GT41240015	20040427010	QUE	180A	3280	SWITCH	20700291	BROKEN WIRE	20040607001	ONT
CL600 2D24	5700	FAIRING	6001038841	20040428002	NCR	180C	5510	REINFORCEMENT	07321014	CRACKED	20040401005	ONT
BRITITEN NORMAN												
BN2	3246	WHEEL BEARING	13889	20040414004	PAC	180H	2710	AILERON DIRECT	C051010516	FRAYED	20040512001	ONT
CANADAIR												
CL215 1A10	0000	O-RING	493476	20040628006	PAC	207	5522	ELEV TIE ASSY/TRIM TAB		CRACKED	20040527008	ONT
CL215 1A10	2720	CONTROL CABLE	215903812	20040510003	ATL	208	3422	CARD ADJUSTMENT		SERVICEABLE	20040503012	PNR
CL215 1A10	2910	HYDRAULIC LINE, RIGID	2157503254	20040607007	QUE	208B	5751	AILERON BELLCRANK	262400724	BROKEN	20040421003	ONT
CL215 1A10	3242	PISTON HOUSING	260414126629	20040623005	PNR	210L	7310	FLUID BOOST PUMP		MISSING WELD	20040614004	ONT
CL215 1A10	5710	FRAME ANGLE	2151036212	20040510002	ATL	401B	2752	SPRING ASSEMBLY	12416432	SEIZED	20040413011	ONT
CL215 1A10	8550	OIL RETURN LINE	215P6311018	20040402007	PAC	401B	5220	FLAP ACTUATOR	511523716	WORN OFF GEARS	20040423003	PAC
CL600 1A11(600)	2424	INTERNAL REGULATOR	720846B	20040413002	ONT	402C	3700	EMERGENCY EXIT	W50111302	CRACKED	20040508002	ONT
CL600 1A11(600)	2222	AXLE FITTING	200811218	20040602008	ONT	414	7800	VACUUM PUMP	442W	CRACKED	20040502012	ONT
CL600 2A12(601)	2110	A/P QUADRANT ASSY	40E228410693	20040603004	QUE	441	3250	LH CANTED BULK		SEIZED	20040616011	ONT
CL600 2A12(601)	3220	BACK-UP RING	7336FTP3	20040504003	QUE	501	2916	Brake Reservoir		WORN	20040621011	ONT
CL600 2A12(601)	3220	LANDING GEAR SYSTEM		20040506005	QUE	525	7500	COUPLING	W99124CE	AS ORIGINAL	20040624009	ONT
CL600 2A12(601)	3418	PROXIMITY SWITCH	6008050045CASSI	20040420003	QUE	550	2730	BOLT	NAS130436	WORN	20040512007	ONT
CL600 2B16(601 3A)	7230	POTENTIOMETER	6009519541	20040423007	ONT	550	2730	ELEVATOR CONTROL		CRACKED	20040621001	QUE
CL600 2B16(604)	2100	FAN BLADE		20040406002	QUE	560	2110	COMPRESSOR DRIVE		LEAKING	20040518010	PAC
CL600 2B16(604)	2520	LOW/LIMIT VALVE (SHAFT)	9795804	20040406002	2 SDRs	560	3020	TEMPERATURE SWITCH	1173T423	OUT OF LIMITS	20040518009	PAC
CL600 2B16(604)	4920	SEATBELT ASSEMBLY		20040413001	ONT	560	7830	INTERLOCK SOLENOID	183238001	WEAK	20040519001	PAC
CL600 2B16(604)	7200	APU		20040602005	ONT	560	7920	OIL MANIFOLD	655601110	LEAKING	20040518001	PAC
CL600 2B16(604)	7230	ENGINE	CF34	20040511005	QUE	560XL	2310	COPPER WIRE	ANTE14379	BROKEN	20040412010	QUE
CL600 2B19(R)	2115	ACTUATOR SERVO		20040507001	NCR	SR22	5753	LEFT OUTBOARD FLAP	14573002	CRORRODED	20040615012	ONT
CL600 2B19(R)	2115	ELEVATOR SERVO MOUNT	8220260001	20040507002	NCR	SR22	5753	LEFT/RIGHT INBOARD FLAP	14571003/004	CRORRODED	20040615014	ONT
CL600 2B19(R)	2721	TRIM SWITCH	272613	20040515000	NCR	SR22	5753	MID FLAP HINGE	14572002	CRORRODED	20040615013	ONT
CL600 2B19(R)	2750	TE FLAP CONTROL SYS		20040609016	QUE	440	7922	OL COOLER DOOR ACTUATOR	315341	FAILED	20040628005	PAC
CL600 2B19(R)	2820	O-RING	MS29513326	20040420007	ATL	CONVAIR - USA						
CL600 2B19(R)	2910	HYDRAULIC LINE		2004043001	NCR	580	2910	CHECK VALVE			20040610001	PAC
CL600 2B19(R)	2913	NLG PRIORITY VALVE	5323300	20040727003	ATL	DASSAULT						
CL600 2B19(R)	3040	WINDSHIELD/DOOR		20040507003	NCR	FALCON 20	3244	TIRE	266F432	TREAD CAP MISSING	20040426005	PNR
CL600 2B19(R)	3213	MAIN FITTING	17064103	20040515002	NCR	FALCON 900C	7334	FUEL PRESSURE	SWAG12561	GOOD	20040609008	ONT
CL600 2B19(R)	3244	TIRE	H20X901516	20040427003	ATL	DEHAVILLAND - CAN						
CL600 2B19(R)	3411	STANDBY ASI & ALTIMETER	WL1024MSS	20040511001	ATL	DHC 2 MKI	3246	UH DOCK FITTING		CRACKED	20040622002	ONT
CL600 2B19(R)	3442	WX RX/RT & ANTENNA	6223030203	20040528001	ATL	DHC 2 MKI	2730	ELEVATOR CONTROL	C2CF815A	CRACKED	20040527007	QUE
CL600 2B19(R)	5210	BOLT		20040623006	ATL	DHC 2 MKI	5511	FORWARD SPAR	C2TP57	CRACKED	20040510005	PNR
CL600 2B19(R)	5210	BRACKETS, SWEL	601R3197412	20040420001	ATL	DHC 2 MKI	7310	DIAPHRAGM	SP31342	CRACKED	20040525003	QUE
CL600 2B19(R)	5210	CABLE ASSEMBLY		20040429002	ATL	DHC 3	7414	DISK/RUBBER MAGNETO	11052	CRACKED	20040521006	QUE
CL600 2B19(R)	5330	FUSELAGE MAIN PLATE		20040423011	ATL	DHC 6 300	5554	BEARING	ABAA	UNSERVICABLE	20040611008	PNR
CL600 2B19(R)	5420	FRAME & DOUBLER	601360012930	20040425001	ATL	DHC 7	2750	FLAP DUMP SOLENOID	664901		20040414003	NCR
CL600 2B19(R)	5510	FAIRING ASSY	600220591008	20040417001	ATL	DHC 7	5755	ACTUATOR	26510101011		20040413007	NCR
CL600 2B19(R)	5610	WINDOW	NP1393225	20040415011	NCR	DHC 7 102	2460	5A CIRCUIT BREAKER	271C25	FAILED SMOKING	20040614008	ONT
CL600 2B19(R)	5610	WINDSHIELD	NP13932112	200405028002	NCR	DHC 8 102	2910	LINE HYDRAULIC	82960010203	LEAKING	20040630001	ATL
CL600 2B19(R)	7200	ENGINE		20040406001	NCR	DHC 8 102	0000	NIL UNKNOWN		LIGHTNING STRIKE	20040427001	ATL
CL600 2B19(R)	7230	POWER PLANT		20040427002	ATL	DHC 8 102	2120	CANNON PLUG	MS3106R10SL3S		20040627002	PAC
CL600 2B19(R)	7260	INTEGRATED DRIVE		20040613001	ATL	DHC 8 102	2760	OUTBO FLIGHT	SP85770013002		20040401001	ATL
CL600 2B19(R)	7330	STOW SWITCH	22850741115	20040408002	QUE	DHC 8 102	2781	TORQUE SENSOR	756158	FAILED	20040504005	ATL
CL600 2C10(R)	7200	ENGINE	412T03G02	20040403002	NCR	DHC 8 102	2900	HYDRAULIC LINE	82920010229	LEAKING	20040422001	ATL
CESSNA												
A152	5551	BRACKET	04320049	20040622006	QUE	DHC 8 102	2910	HOSE	89925	CRACK	20040623004	ATL
A185F	2710	AILERON CABLE	051010513/516	20040406001	ONT	DHC 8 102	3242	PARK BRAKE VALVE	58570	SLOW TO RELEASE	20040415008	ATL
A185F	5511	REAR SPAR REINFORCEMENT	07326031	20040506001	ONT	DHC 8 102	3260	LANDING GEAR POST			20040527012	ATL
A185F	7111	COWL FLAP PAN ASSY	07520144	20040421004	ONT	DHC 8 102	3260	SENSOR	864202	DAMAGED	20040531004	ATL
T210L	2410	BELT		20040622005	QUE	DHC 8 102	3297	SWITCH	MS2452533		20040601005	ATL
T303	2810	LINE ASSEMBLY	2500010071	20040518005	PNR	DHC 8 102	3310	RHEOSTAT	RV4NBYSD502A	UNSERVICABLE	20040615005	ATL
U206G	3411	AVIONICS FAN	C4140070101	20040526008	ONT	DHC 8 102	5542	SKIN	85540001003	CRACKED	20040510001	ATL
150M	2820	LINE ASSEMBLY	FU040031158	20040610010	ONT	DHC 8 300	0000	CHECK VALVE	756158		20040625001	NCR
152	3221	ENGINE MOUNT	04510036	20040422003	PAC	DHC 8 300	3246	WHEEL ASSY	314802	MISSING	20040513002	NCR
152	3340	SWITCH	S21605	20040618003	PAC	DHC 8 301	3233	BUSHING	NAS7512017		20040629005	ATL

MAKE/MODEL	JASC PART NAME	PART NO.	PART CONDITION	SDR NO.	RGN	MAKE/MODEL	JASC PART NAME	PART NO.	PART CONDITION	SDR NO.	RGN
DHC 8 301	2910 FLEX HOSE	AE2463510E0124	LEAKING	20040625009	ATL	PIAGGIO	P180 AVANTI	3240	BRAKE LINE	80197035099	MECHANICAL/ABRASION
DHC 8 301	2612 FIRE DETECTION	L82455014003	FAILED	20040611006	ATL	PILATUS - SW				20040528003	ONT
DHC 8 301	5101 DOOR	NA	DAMAGED	20040614007	ATL	PC 12	7510 LINEAR ACCUATOR	9787315301	FAILED	20040406004	ONT
DHC 8 301	7500 BLEED PIPE	82110123015	CRACKED	20040628002	ATL	PC 12 45	2131 CNTRL/ROUT/FLOW/VALVE	9599091141	INTERNAL MALFUNCTION	20040630003	ONT
DHC 8 311	8000 DC CONTACTOR RELAY	A4N	FAILED	20040526001	ATL	PC 12 45	7800 L/H EXHAUST STACK	5781012041	CRACKED	20040630004	ONT
DHC 8 311	8230 PSEU	858601		20040417002	ATL	PC 12 45	2160 TEMPERATURE CONTROL	9599020212		20040521004	ONT
DHC 8 311	3230 SEQUENCE VALVE	69210		20040614003	ONT	PC 12 45	2211 MODE CONTROL	085008617		2004061011	ONT
DHC 8 311	6120 FUEL PUMP	5008269H		20040422005	NCR	PC 12 45	2742 PITCH TRIM ACTUATOR	1291110002	GOOD	20040410106	ONT
DHC 8 400	2900 LH MLG ACTUATOR	46455109	LEAKING	20040610008	NCR	PC 12 45	2752 FLAP DRIVE ARM	5275212154	CRACKED	20040621002	ONT
DHC 8 400	2913 ENGINE HYD DRIVE			2 SDRs	NCR	PC 12 45	2760 FLAP RELAY	9742001902	FAILED	20040526009	PNR
DHC 8 400	3230 PROXIMITY SWITCH	401020101	SHORTED	20040422006	NCR	PC 12 45	2780 MICROSWITCH	9733031216	STICKING	20040616004	ONT
DHC 8 400	3260 NG DOOR SENSOR/WIRING			20040611001	NCR	PC 12 45	2781 MICROSWITCH	9733031215	STICKING	20040621004	ONT
DHC 8 400	3310 RHEOSTAT			20040514003	QUE	PC 12 45	2820 CHECK VALVE	9630911101	NEW	20040511006	QUE
DHC 8 402	2710 SPOILER CABLES					PC 12 45	2932 LOWPRESS HYD SWITCH	9738114304	LEAKING	2 SDRs	ONT
DIAMOND - CAN						PC 12 45	3040 TERMINAL END		BURNT/CORRODED	20040421002	ONT
DA 20 C1	2822 FUEL PUMP	5867001	FAILED	20040408005	PNR	PC 12 45	3230 RELAY	9740926112	FROZEN	20040616003	ONT
DORNIER						PC 12 45	3246 MAIN WHEEL FAIRING	15702100	CRACKED	20040616005	ONT
228 202	3260 WEIGHT SWITCH	222D232M88051	N/A	20040506006	PNR	PC 12 45	3250 BUSHING	5322012078	WORN	20040616007	ONT
DOUGLAS						PC 12 45	3260 PROXIMITY SWITCH	9733033111	FAILED	20040621007	ONT
B26C	8530 PUSH/TUBE GLAND NUT			20040607002	PNR	PC 12 45	3411 PITOT TUBE	9651112302		20040610112	ONT
DC9 83	2410 CSD	696233B		3 SDRs	QUE	PC 12 45	5210 BRACKET/ COUNTERBALANCE	5521012179	CRACKED	20040616010	ONT
DC9 83	2742 DRIVE	95906		20040601005	QUE	PC 12 45	5210 PASSENGER DR HANDLE	5521012187	BROKEN	20040616008	ONT
DC9 83	2781 LE SLAT POSITION			20040511004	QUE	PC 12 45	8300 SEAL		DAMAGED	20040604003	ONT
DC9 83	3230 LANDING GEAR RET			20040617001	QUE	PIPER					
DC9 83	3280 LIG PROX SENSOR	833703		20040429003	QUE	PA23 250	3230 HYDRAULIC POWER	318003	LEAKING	20040426002	PNR
DC9 83	3418 STALL WARNING SYSTEM			20040601003	QUE	PA24 260	3230 DOOR RELEASE PIN		WORN	20040426006	PNR
DC9 83	7220 TURBINE ENG AIR INLET			20040604001	QUE	PA28 140	7600 BOLT	AN37	MISSING	20040423001	ATL
DC9 83	7920 ENGINE OIL STRAINER			20040429004	QUE	PA31	3080 BRUSHBLOCK		SHORDED	20040419003	PAC
EMBRAER						PA31 350	3242 O-RING	MS28775132	UT	20040528007	PNR
EMB 110	2731 BRACKET ASSY.	110321004	CRACKED	20040514002	PAC	PA31 350	4242 BATTERY POST	ALU8421R		20040519006	PNR
ERCO						PA31 350	3213 HOUSING ASSEMBLY	4032700	CRACKED	20040418001	PNR
415CD	5700 RIB RH	13017R	SEVERE CORROSION	20040430001	ONT	PA31 350	3720 DRIVE SHAFT	441CC7	SHAFT IS SHEARED	20040625008	PNR
EUROCOPTER CANADA						PA31 350	5730 WING SKIN	4085910	CRACKED	20040414002	PNR
BO105 LS A3	2900 ACTUATOR HOUSING	105456811	CRACKED	20040407009	ONT	PA31 350	6120 PROPELLER CABLE	2488407	BROKEN	20040519007	PNR
EUROCOPTER DEUT						PA31 350	5300 LONGITUDINAL BULKHEAD	500909XX	CRACKED	20040520004	PNR
BO105 S CDN BS 2821	FILTER ASSEMBLY			20040405004	ONT	PA32/RT 300T	7603 THROTTLE CABLE	453360	BROKEN	20040609013	ONT
BO105 S CDN BS 45301	RELEASE CABLE	AS145202	FAILED SWAGE	20040405005	ONT	PA42 720	2400 SWITCH-RADIO MASTER	688219	WORN	20040427016	PNR
BO105 S CDN BS 46321	BRAKE BOX	10541227	ELONGATED HOLES	20040420001	ONT	PA42 720	2697 DETECTOR - FIRE	5064200	SHORDED	20040521003	PNR
EUROCOPTER FRANCE						PA44 180	2210 FWD CABLE	62701160	FRAYED	20040517002	ONT
EC 120 B	2140 HOSE	728879		20040610002	QUE	PA44 180	3220 DRAG LINE BOLT	NAS464P427	BROKEN	20040401002	ONT
EC 155 B	2572 FUSE HOLDER	DH578212010	LOOSE CAP	20040624004	ONT	PA44 180	3230 INNER SPRING	6716800	BROKEN	20040408007	ONT
FAIRCHILD						PA44/1	6320 PINION SHAFT	269A510351	BROKEN	20040427013	QUE
F27F	3244 TIRE	95X1612	SEPARATED	20040519003	PAC	S61N	5400 BUSHING	PD6154407003	NEW	20040508007	PAC
SA227AC	5711 SPAR	2734023008	CRACKED	20040423005	ATL	S64E	2140 DUCTING		FAILED	20040527004	PAC
SA227CC	3230 LANDING GEAR RETRACTOR			20040616006	ONT	SA26TC	7321 FUEL CONTROL UNIT	8978017	UNSERVICEABLE	20040629004	PNR
SA227DC	2910 TUBE		CHAFED	20040507004	PAC	SA26TC	2613 SWITCH, THERMAL	434422123	FAULTY	20040610005	PAC
FOUND BROS						SA26TC	2710 LINK ASSY	27710404073	CRACK/CORRODED	20040618006	QUE
FBA 2C1	6120 JAM NUTS	AN316	LOOSE	20040623001	ONT	SA26TC	3213 PIN	752529003	BROKEN	20040617005	PNR
HAWKER SIDDELEY-UK						SA26TC	3242 BRAKE/MASTER CYLINDER	V151000	LOCKED	20040617004	PNR
HS 748 2A	2730 ELEVATOR CONTROL	288G3096	CRACKED/SEPARATE	20040415004	PNR	SA27/AC	2910 HYDRAULIC LINE	2781032081	URST	20040503010	ONT
HS 748 2A	2900 FLEX LINE	T2C5000605500	CHAFED	20040527009	ONT	SA27/AC	3250 SWITCH	C1006	BROKEN WIRE	20040527010	ONT
HS 748 2A	5230 CARGO DOOR HINGE			20040249009	PNR	SA27/AC	3610 PNEUMATIC DIST SYSTEM			20040426001	ONT
HS 748 2A	5300 ANTENNA-GPS	AVSAT100		20040518012	ONT	SA27/AC	6120 BETA SWITCH	8975428	INTERMITTENT	20040614003	ONT
HS 748 2A	7510 ENGINE ANTI-ICING			20040611007	PNR						
HELIO											
H295	7120 LEFT MOUNTING LUG		CRACKED	20040412014	PNR						
HUGHES											
369D	6210 M/R BLADE	369D21100523	UNSERVICEABLE	2 SDRs	VAR						
ISRAEL											
ASTRA SPX	5246 REFUEL ACCESS DOOR	25W062210031	REMOVED	20040616012	PAC						
ASTRA SPX	5280 MAIN LANDING GEAR	25N2612	CRACKED	20040420023	PAC						
1124	3250 LANDING GEAR STEP			20040624002	ONT						
LEARJET											
35	2916 RESERVOIR	231707510	CRACKED	20040429007	PAC						
35	3246 WHEEL HALF	95440263	CRACKED	2 SDRs	PAC						
35A	2133 FLOW CONTROL VALVE	D26D6412	FAILED	2004042002	QUE						
45	2450 POWER DIST PANEL	700G002Y07	FAILED	20040527006	PAC						
45	7603 THROTTLE CONTROL	M6678101000013	VERY STIFF	20040527005	PAC	AE-3007A/1	7200 ENGINE			20040629001	QUE
LOCKHEED						AE-3007A/1	7250 BEVEL DRIVING SH	23056789	FAILED	2004062002QUE	
L 1011 385 1 14	2900 COUPLING	S305201	CRACKED	20040427009	QUE	AE-3007A/1	7200 ENGINE			20040625007QUE	
MAULE						AE-3007A/1	7250 DRIVE BEVEL SHAFT	23056789	FAILED	2004062003QUE	
M 5 235C	2750 FLAP HANDLE		BROKEN	20040628010	PNR	AE-3007A/1	7530 ATTACHMENT BOLT	SMS955608	LOOSE	2004062006QUE	
MOONEY						AE-3007A/1	7200 ENGINE			20040629001	QUE
M20C	3230 TUBE	915019000	BENT	20040409001	ONT	AE-3007A/1	7250 HP TURBINE ROTOR	23070981	FAILED	20040602001QUE	
						AE-3007C	7250 ENGINE			20040629002QUE	
						250-C20R	5300 R/H ENG MOUNT	CL206032303014	CRACK	2004072015	PNR
						250-C20R	7230 COMPRESSOR	23050833	DAMAGED	20040419001	ATL
						250-C20R	7250 ELECTRICAL LEAD		UNKNOWN	20040428007	PAC

MAKE/MODEL	JASC	PART NAME	PART NO.	PART CONDITION	SDR NO.	RGN	MAKE/MODEL	JASC	PART NAME	PART NO.	PART CONDITION	SDR NO.	RGN
250-C30P	2435	BRUSH	303001383	WORN	20040407008	ONT	WASP S3H1-G	8530	CYLINDER	AE92181	CRACKED	20040504007	PAC
250-C30P	7250	TURBINE	23033195	CRACKED	20040420005	PAC	ROLLS ROYCE - GY	7600	EEC			20040408001	QUE
501-D22A	7210	REDUCTN GEARBOX	6850209	METAL CONTAM	20040408009	ONT	BR700-710A2-20	7200	ENGINE			20040520001	ONT
AVCO LYCOMING							TELEDYNE CONTINENTAL						
AEI0-360-A1B6	8500	EXHAUST SILENCER	L24266710000	BROKEN BAFFLE	20040406005	ONT	C-75-12	7411	COIL	10357164	CRACKED	2 SDRs	ONT
AEI0-360-A1B6	8500	TEE FITTING	L2427600600	SEPARATED	20040408013	ONT	IO-240-B	8500	FUEL PUMP			20040406006	ATL
ALP-502R-5	7320	SECONDARY OVERSPEED	230305204	FAILED	20040401003	ATL	IO-240-B	8500	STUD, ROCKER	SHA401852		20040609017	ONT
IO-360-A2B	8550	RECIPROCATING ENGINE			20040518004	PNR	IO-470-S	8520	CRANKCASE			2 SDRs	QUE
IO-540-C4B5	7414	BEARING	67542	LOOSE IN HOUSING	20040610013	ONT	IO-520-F	8520	CRANKSHAFT			20040630002	PAC
IO-540-L1C5	8500	ENGINE DATA PLATE		MISSING	20040427005	ONT	IO-520-L	8520	CYLINDER ASSEMBLY	L653446	CRACKED	20040423004	PAC
LTIO-640-J2BD	8560	VAC PUMP DRIVE	S06A18966	SHAFT SEAL SCUFFED	20040413012	PNR	IO-520-M	8500	FUEL PUMP	6462125	LEAKING	20040528008	QUE
LTIO-540-J2BD	8560	TURBOCHARGER SUPPORT	LW18302	CRACKED	20040416002	PNR	IO-550-D	7414	DISTRIBUTOR GEAR			20040408008	PNR
LTS-101-600A-2	7200	AIRFLOW MODULATOR	430110209	FAILED	20040406007	PNR	O-200-A	8500	SPARKER GEAR RETAINING RING	640174		20040520003	PNR
O-235-L2C	8550	PISTON PIN PLUG	LW11625	WORN	20040629008	PAC	O-300-A	8530	CYLINDER	SA10200A1		20040415002	PAC
O-235-L2C	7322	ACEL PUMP SUPPLY TUBE	UNKNOWN	SEPARATED	20040618004	PAC	O-470-K	8530	CYLINDER	CKAS568	OVERSIZE	20040415004	ONT
O-235-L2C	7421	SPARK PLUG	REM378Y	CONTAMINATED	20040427008	ONT	TSIO-520-AE	8500	TACHOMETER	C686022101	NEEDLE STUCK	20040518006	PNR
O-320-E2A	8550	CYLINDER BARREL	TISN040CA	SURFACE DAMAGED	20040529003	PAC							
O-320-E2A	8550	CYLINDER ASSEMBLY	LW12597	BROKEN	20040519009	QUE							
O-320-E2D	8500	OIL FILTER ADAPTOR	75528	OVERHEATED	20040429005	QUE							
O-360-A1H6	8520	PISTON / PISTON	750891LW11775	BROKEN / WORN	20040604002	ONT							
O-540-E4C5	7414	MAGNETO/DISTRIBUTOR			20040518002	PNR							
TIO-540	8500	CONNECTING ROD BOLT	SL75060	FAILED	20040426006	PNR							
TIO-540-A2C	7314	FUEL PUMP			20040426004	PNR							
TIO-540-A2C	8520	CONNECTING ROD	CYLINDER1	DESTROYED	20040521002	QUE							
TIO-540-C1A	8520	CHRANKSHAFT GEAR		BROKEN	20040610004	QUE							
TIO-540-J2BD	7414	MAGNETO	1068291013	NO VISIBLE DAMAGE	20040511007	PNR							
TIO-540-J2BD	8500	ENGINE			20040410009	PNR							
TIO-540-J2BD	8500	ENGINE DRIVEN FUEL PUMP	PRG9080J7AM	LEAKING	20040406003	ATL							
TIO-540-J2BD	8500	SERVO FUEL INJECTOR	25245009	GOOD	20040624003	PAC							
CFM INTERNATIONAL							HARTZELL						
CFM56-5A1	7261	ENG. OIL LINE	3371535030	LEAKING	20040412004	QUE	HC-B3TN-3DY	6114	PISTON SEAL	45C3173472	CUT	20040525004	PNR
CFM56-5A5	7532	COMPRESSOR BLEED			20040408004	QUE	HC-B3TN-5FL	6140	BETA LIGHT SWITC	800323503	FAILED	20040429001	PAC
GARRETT							HC-E4A-3I	6111	BLADE BEARING	C792	CRACKED	2 SDRs	PAC
TFE731-2-2B	7722	HARNESS/TERM COUPLE	30739501	SHORTED	20040422002	QUE							
TFE731-40R-2006	7310	MOTIVE FLOW PUMP	30607591	FAILED	20040430002	QUE							
TPE331-10N	7310	FUEL CONTROL UNIT	89711019	FAILED	20040609018	PAC							
TPE331-10UA	7250	HIGH SPEED PINION	310117015	LOOSE			3 SDRs						
TPE331-10UA	7250	PINION	310117017	BROKEN			2 SDRs						
TPE331-10UA-511G	7250	NUT	31080661	NEW	20040405002	PNR							
TPE331-11U-612G	7210	PLANETARY GEAR	B31025613	FLAKING	20040604013	ONT							
GENERAL ELECTRIC							MC CALLAHEY						
CF6-80C-26B8	7200	ENGINE (TURBINE)			20040407001	QUE	1A103/TCM6968	6114	PROPELLER			20040407012	PAC
CF700-2D-2	7200	ENGINE			20040608010	PNR	1A170E/JHA7660	6113	BACKPLATE (PROP)	055032111	BROKEN / TORN	20040610008	ONT
PRATT & WHITNEY-CAN							1C160	6110	PROPELLER			20040429006	PAC
PT6A-114A	7230	SEGMENT RETAINING	3020159	COLLAPSED	4 SDRs	PNR	1C172/EM7653	6114	PROPELLER			20040429010	PAC
PTPT6A-135	7390	T5 HARNESS			20040610007	PNR							
PT6A-20	7603	PMR CTRL SPRING LINK	901187263	SERVICEABLE	20040513008	PNR							
PT6A-27	7200	ENGINE		FAILED	2 SDRs	QUE							
PT6A-28	7220	P2.5 BLEED ADAPTER		CRACKED	20040604009	ONT							
PT6A-42	7810	R/H EXHAUST STACK	FA572618R	CRACKED	20040428003	PNR							
PT6A-50	7322	FUEL CONTROL UNIT	324475319	UNSERVICABLE	20040617007	PNR							
PT6A-60A	7210	O-RING	AS3209114	PINCHED/CUT	20040519010	QUE							
PT6A-65B	7220	BREATHER HOSE	SCD4ETTS4146	KINKED/PINCHED	20040518003	ONT							
PT6A-87D	7250	POWER TURBINE BLADES			20040405009	PAC							
PT6T-3	7250	COMPRESSOR TURBINE WHEEL			20040413005	QUE							
PW120A	7323	OVERSPEED GOVERNOR	8210161C	FAILED	20040412004	ATL							
PW123	7530	ADPTR VENTRUL BLDAR PIPE	311269001		20040622007	ATL							
PW150A	7230	TURBINE ENGINE			2 SDRs	NCR							
PW535A	7530	BLEED AIR TUBE	65551117	WORN	20040519002	PAC							
PRATT & WHITNEY-USA							SONSENICH						
JFTD12A-4A	7320	FUEL PRESS.& DUMP	586982	MALFUNCTION	2 SDRs	PAC	M74DM-0-58	6114	PROPELLER			20040430003	PAC
JFTD12A-4A	7931	OIL PUMP	636716	FAILED	20040519005	PAC							
JT8D-17	7310	BACK-UP RING	MS905820		20040510004	PNR							
JT8D-219	7200	ENGINE			20040419004	QUE							
R-1340-AN-1	8500	ENGINE	R1340S3H1G	FAILED	20040628001	ONT							
R-1340-S3H1-G	8530	CYLINDER ASSEMBLY	399359	CORRODED	20040511003	QUE							
R-1830-92	8500	ENGINE	REB37E		20040421001	NCR							
R-2000-7M2	7421	SPARK PLUGS			20040618007	PNR							
R-2000-7M2	8500	OIL LINE			20040412008	PNR							
R-2000-7M2	8500	ENGINE OVERSPEED			20040405008	PNR							
R-2000-7M2	8530	CYLINDER	153072		20040416003	PNR							
R-2000-7M2	8550	CYL HEAD OIL DRAIN	153084		20040416005	NCR							
R-2600-CA3	8520	MAIN BEARING			20040629010	PNR							
R-2800-51M1	8500	CYLINDER ASSY.	136919	OVERHEAT	20040503013	PNR							
WASP CB3	8530	CYLINDER	356995	CRACKED	20040620009	PAC							
							LEGEND						
JASC							Joint Aircraft System Code number defining assembly/system/component						
SDR NO.							TCA assigned SDR control number - please quote in any correspondence or inquiries						
RGN							TCA region of SDR submitter:						
PAC							PAC = Pacific,						
ONT							ONT = Ontario,						
ATL							ATL = Atlantic,						
QUE							QUE = Quebec,						
NCR							NCR = Ottawa (HQ),						
VAR							VAR = more than one Region						

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